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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/030,222
Filing Date: April 01, 2002
Appellant(s): KOHLER ET AL.

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GROUP 1700

Antonelli, Terry, Stout and Kraus, LLP
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/23/2006 appealing from the Office action
mailed 2/23/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,858,489	Beauquin	1-1999
5,272,181	Boehmer et al.	12-1993

5,705,536

Tomka

1-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 2-6,8-11,21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauquin in view of Boehmer et al.

As to claims 3, Beauquin discloses a pipe jacket comprising a volume defined by the space contained between a first enclosure interior to a second enclosure is filled with insulation material (figure 1 number 24). As to claim 2, Beauquin discloses that the volume is an annular spaced defined by the outside of a pipe placed in another pipe (figure 1 number 26 and 10). As to claim 8, Beauquin discloses pipeline networks which reads on a string of tubings (col. 1 line 14). Beauquin fail to disclose solubilizing the vegetable foam particles by an aqueous fluid and free pulling the first enclosure. Beauquin fail to disclose that between a first enclosure and a second enclosure the space is filled with vegetable foam particles. As to claims 5,21 Beauquin fail to disclose that the average particle size is below 5mm. As to claims 6,10,22,23 Beauquin fail to disclose that the vegetable foam comprises at least flour, plasticizer, another additive, a

water content below 10% and preferable below 5%. As to claim 11, Beauquin fail to disclose that the space further comprises at least one of the following insulants, silicate foam particles, aerogel foam particles, or dry powders.

Boehmer et al. teaches expanded vegetable foam material is solublized by an aqueous fluid (col. 1 lines 49) for the purpose of being able to be placed on the subsurface layer of a landfill or to be disposed in a wastewater treatment system having facilities for biological or other types of degradative treatment (col. 2 lines 50-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Maxson with expanded vegetable foam material that is solublized by an aqueous fluid in order to be able to be placed on the subsurface layer of a landfill or to be disposed in a wastewater treatment system having facilities for biological or other types of degradative treatment (col. 2 lines 50-55) as taught by Boehmer et al.

As to claims 3,4,9 Boehmer et al. discloses that vegetable foam comprises at least flour (col. 3 lines 50-52), plasticizer (col. 4 line 14), another additive (col. 3 lines 13-15), a water content below 10% (col. 8 line 15) as desired by the applicant, therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide that the aqueous fluid that the vegetable foam is solubized by is about 1N soda and that the vegetable foam have a thermal conductivity ranging between 0.03 and 0.06W/mK, since it has been held that discovering optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d.

Boehmer et al. teaches that the vegetable foam comprises at least flour (col. 4 line 47), plasticizer (col. 4 line 48), another additive (col. 4 line 49), a water content below 10% preferably below 5% (col. 4 line 50), and silicate particles (col. 6 line 53) for the purpose of being able to be disposed in a wastewater treatment system having facilities for biological or other types of degradative treatment (col. 2 lines 50-55).

Boehmer et al. teaches that the average particle size is below 5mm (col. 5 lines 8-9) for the purpose of giving the foam structure and for being inexpensive and readily available (col. 5 lines 12-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Beauquin with that the vegetable foam comprises at least flour, plasticizer, another additive, a water content below 10% and preferable below 5%, and silicate particles in order to be disposed in a wastewater treatment system having facilities for biological or other types of degradative treatment (col. 2 lines 50-55) as taught by Boehmer et al.

Also, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Beauquin with the average particle size that is below 5mm in order to giving the foam structure and for being inexpensive and readily available (col. 5 lines 12-14) as taught by Boehmer et al.

(10) Response to Argument

Appellant argues that there is no suggestion in Beauquin and that the material of Boehmer et al. should be used in the pipe insulating jacket and that there is no disclosure in Boehmer et al. that the foam material described therein can be used as a

thermal and /acoustic insulation, hence there is no motivation to use the material in place of the aerogel of Beauquin.

The expanded foam material taught by Boehmer et al. is inherently an insulative material and further is known in the art to have variety of uses besides packaging. U.S. Patent 5705536, used here to merely support examiner's argument, teaches that it is well known in the art that biologically degradable polymer foam is known to have varied uses in among other things, such as packaging, thermal insulation, acoustic insulation, construction and many fields of use of daily life (col. 1 lines 14-16). Thus, it would have been obvious to one having ordinary skill in the art to provide Beauquin whose invention is directed to thermal and acoustic insulation with the biologically degradable polymer foam taught by Boehmer et al. whose invention is directed to packaging for the purpose of providing a foam that retains its shape and compressibility under non-wetted conditions but disintegrates when subjected to continuous water (Boehmer et al. col. 2 lines 45-49). Also since U.S. patent '536 supports the motivation of using biologically degradable polymer foam not only in packaging but also for acoustic insulation it would also have been obvious to provide Beauquin with the biologically degradable polymer foam taught by Boehmer et al.

Appellant argues that there is no suggestion to use particles having an average particle size below 5mm and there is no suggestion in Boehmer et al. that the expanded foam material has a thermal conductivity ranging between 0.03 and 0.06 W/mK. Appellant further argues that Boehmer et al. can not inherently have a thermal

conductivity ranging between 0.03 and 0.06 W/mK because Boehmer et al. does not disclose a water content below 10% or preferably below 5%.

Boehmer et al. discloses that the annular die used to make the packing material has a cross sectional area of 0.025 square inches which is 0.635mm and even if the cross sectional area was multiplied by two in order to provide the whole particle size instead of a cross sectional area, the particle size would still be below 5mm since 1.27mm is smaller than 5mm (col. 6 line 23). Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Beauquin with the average particle size that is below 5mm in order to giving the foam structure and for being inexpensive and readily available (col. 5 lines 12-14) as taught by Boehmer et al.

Boehmer et al. discloses that vegetable foam comprises at least flour (col. 3 lines 50-52), plasticizer (col. 4 line 14), another additive (col. 3 lines 13-15), a water content below 10% (col. 8 line 15) as desired by the applicant, therefore it is inherent that the vegetable foam have a thermal conductivity ranging between 0.03 and 0.06W/mK. Appellant argues that Boehmer et al. can not inherently have a thermal conductivity ranging between 0.03 and 0.06 W/mK because Boehmer et al. does not disclose a water content below 10% or preferably below 5%. Boehmer et al. teaches that the starch graft copolymer foam which is the vegetable foam desired by the applicant has about 5-100 parts (dry basis) of a starch graft copolymer (col. 2 lines 63-65). Therefore, since Boehmer et al. teaches that the starch graft copolymer has a content of 100 parts of the starch graft copolymer there is a 0% water content, which is a water content

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below 10%, even below 5% as desired by the applicant. Hence, Boehmer et al. discloses foam material having the materials desired by the applicant, therefore it is inherent that the vegetable foam has a thermal conductivity ranging between 0.03 and 0.03W/mK.

(11) Related Proceeding(s) Appendix


No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jane Rhee

October 24, 2006



Conferees:

Pat Ryan



Greg Mills

